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Filing Date: September 17, 2003

Title: CHANNEL ESTIMATION FEEDBACK IN AN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING SYSTEM OR THE LIKE

REMARKS

This communication responds to the Final Office Action dated September 3, 2008.

Claims 1, 9, 17, 21, 25, and 31 are amended, claims 2, 3, 5, 10, 11, 13, 18, 22, 26, 28, and 32 are cancelled; as a result, claims 1, 4, 7-9, 12, 14-17, 19-21, 23-25, 27, 29-31, 33-34 are now pending in this application.

Interview Summary

Applicant thanks Examiner Kwasi Karikari for the courtesy of a telephone interview on October 20, 2008 with Applicant's representative Paul J. Urbanski. A proposed amendment to claim 1 was discussed during the interview. However, no agreement was reached as to the patentability of the claim when amended as proposed, and an alternative amendment was discussed during the interview.

Applicant believes all pending claims are allowable at least for the reasons set forth below. Accordingly, Applicant respectfully requests allowance of all pending claims.

§102 Rejection of the Claims

Claims 1, 4, 6, 8, 9, 11, 12, 14, 16, 17, 20, 21, 24, 25, 27, 29, 31, and 34 were rejected under 35 U.S.C. § 102(e) for anticipation by Kadous et al. (U.S. 2003/0095508 A1, "Kadous"). Applicant respectfully traverses the rejection and has amended claims 1, 9, 17, 21, 25, and 31 to clarify the present subject matter.

Applicant respectfully submits that independent claims 1, 9, 17, 21, 25, and 31 are allowable over Kadous because the cited portions of Kadous do not teach all of the subject matter recited or incorporated into the claims. For example, Applicant cannot find in Kadous, among other things,

quantizing a channel response function of a signal received from a transmitter or a residual value of the channel response function, wherein the channel response function is represented by M complex numbers, wherein a channel estimate is subtracted from the channel response function to provide the residual value, and converting the signal from a frequency domain representation of the signal to a time domain representation of the signal prior to said quantizing

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as presently recited in claim 1 and similarly recited in claims 9, 17, 21, 25, and 31.

Therefore, claims independent 1, 9, 17, 21, 25, and 31 are not anticipated by the cited portions of Kadous. Dependent claims 4, 6, 8, 12, 14, 16, 20, 24, 27, 29, and 34 are believed to be patentable for at least the reasons set forth above. Applicant respectfully requests reconsideration and allowance of the claims.

§103 Rejection of the Claims

- Claims 2, 5, 10, 13, 18, 22, 26, 28, and 32 were rejected under 35 U.S.C. § 103(a) as 1. being unpatentable over Kadous in view of Davidsson et al. (U.S. 2002/0101840 A1). Claims 2, 5, 10, 13, 18, 22, 26, 28, and 32 were cancelled.
- Claims 7, 15, 19, 23, 30, and 33 were rejected under 35 U.S.C. § 103(a) as being 2. unpatentable over Kadous in view of He et al. (U.S. 2004/0005010 A1, "He"). Applicant respectfully traverses the rejection.

Claims 7 depends on base claim 1, claim 15 depends on base claim 9, claim 19 depends on base claim 17, claim 23 depends on base claim 21, claim 30 depends on base claim 25, and claim 33 depends on base claim 31. As set forth above, Applicant believes the base claims to be allowable at least for the reason that Kadous fails to teach or suggest all of the elements of those claims. He fails to provide the missing elements. For example, Applicant cannot find in the proposed combination of Kadous and He, among other things,

quantizing a channel response function of a signal received from a transmitter or a residual value of the channel response function, wherein the channel response function is represented by M complex numbers, wherein a channel estimate is subtracted from the channel response function to provide the residual value, and converting the signal from a frequency domain representation of the signal to a time domain representation of the signal prior to said quantizing

as presently similarly recited in claims 1, 9, 17, 21, 25, and 31 and incorporated into claims 7, 15, 19, 23, 30, and 33.

Applicant respectfully requests reconsideration and allowance of the claims.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 371-2172 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date ______ Dec . 3, 2008

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<u>CERTIFICATE UNDER 37 CFR 1.8</u>: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 3rd day of December, 2008.

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Signature